

# Coronavirus Disease 2019 (COVID-19)

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## Cleaning and Disinfection for Households Detailed Disinfection Guidance

Interim Recommendations for U.S. Households with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19)

Updated July 10, 2020

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### Summary of Recent Changes

Revisions were made on 3/26/2020 to reflect the following:

- Updated links to EPA-registered disinfectant list
- Added guidance for disinfection of electronics
- Updated core disinfection/cleaning guidance

## Background

There is much to learn about the novel coronavirus (SARS-CoV-2) that causes [coronavirus disease 2019](#) (COVID-19). Based on what is currently known about COVID-19, spread from person-to-person of this virus happens most frequently among close contacts (within about 6 feet). This type of transmission occurs via respiratory droplets. On the other hand, transmission of novel coronavirus to persons from surfaces contaminated with the virus has not been documented. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19. Transmission of coronavirus occurs much more commonly through respiratory droplets than through objects and surfaces, like doorknobs, countertops, keyboards, toys, etc. Current evidence suggests that SARS-CoV-2 may remain viable for hours to days on surfaces made from a variety of materials. Cleaning of visibly dirty surfaces followed by disinfection is a best practice measure for prevention of COVID-19 and other viral respiratory illnesses in households and community settings.

It is unknown how long the air inside a room occupied by someone with confirmed COVID-19 remains potentially infectious. Facilities will need to consider factors such as the size of the room and the ventilation system design (including flowrate [air changes per hour] and location of supply and exhaust vents) when deciding how long to close off rooms or areas used by ill persons before beginning disinfection. Taking measures to improve ventilation in an area or room where someone was ill or suspected to be ill with COVID-19 will help shorten the time it takes respiratory droplets to be removed from the air.

## Purpose

This guidance provides recommendations on the cleaning and disinfection of households where [persons under investigation \(PUI\)](#) or those with confirmed COVID-19 reside or may be in self-isolation. It is aimed at limiting the survival of the virus in the environments. These recommendations will be updated if additional information becomes available.

These guidelines are focused on household settings and are meant for the general public.

- **Cleaning** refers to the removal of germs, dirt, and impurities from surfaces. It does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.
- **Disinfecting** refers to using chemicals, for example, EPA-registered disinfectants, to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface *after* cleaning, it can further lower the risk of spreading infection.

# General recommendations for routine cleaning and disinfection of households

- Community members can practice routine cleaning of frequently touched surfaces (for example: tables, doorknobs, light switches, handles, desks, toilets, faucets, sinks, and electronics (see below for special electronics cleaning and disinfection instructions)) with household cleaners and [EPA-registered disinfectants](#) [↗](#) that are appropriate for the surface, following label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.
  - For electronics follow the manufacturer's instructions for all cleaning and disinfection products. Consider use of wipeable covers for electronics. If no manufacturer guidance is available, consider the use of alcohol-based wipes or spray containing at least 70% alcohol to disinfect touch screens. Dry surfaces thoroughly to avoid pooling of liquids.

## General recommendations for cleaning and disinfection of households with people isolated in home care (e.g. suspected/confirmed to have COVID-19)

- Household members should educate themselves about COVID-19 symptoms and preventing the spread of COVID-19 in homes.
- **Clean and disinfect high-touch surfaces daily in household common areas (e.g. tables, hard-backed chairs, doorknobs, light switches, phones, tablets, touch screens, remote controls, keyboards, handles, desks, toilets, sinks)**
  - In the bedroom/bathroom dedicated for an ill person: consider reducing cleaning frequency to **as-needed** (e.g., soiled items and surfaces) to avoid unnecessary contact with the ill person.
- As much as possible, an ill person should stay in a specific room and away from other people in their home, following [home care guidance](#).
- The caregiver can provide personal cleaning supplies for an ill person's room and bathroom, unless the room is occupied by child or another person for whom such supplies would not be appropriate. These supplies include tissues, paper towels, cleaners and EPA-registered disinfectants ([see examples](#) [↗](#) ).
- If a separate bathroom is not available, the bathroom should be cleaned and disinfected after each use by an ill person. If this is not possible, the caregiver should wait as long as practical after use by an ill person to clean and disinfect the high-touch surfaces.
- Household members should follow [home care guidance](#) when interacting with persons with suspected/confirmed COVID-19 and their isolation rooms/bathrooms.

## How to clean and disinfect

### Hard (Non-porous) Surfaces


- Wear disposable gloves when cleaning and disinfecting surfaces. Gloves should be discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes. Consult the manufacturer's instructions for cleaning and disinfection products used. [Clean hands](#) immediately after gloves are removed.
- If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- For disinfection, most common EPA-registered household disinfectants should be effective.
  - A list of products that are EPA-approved for use against the virus that causes COVID-19 is available [here](#) [↗](#) . Follow manufacturer's instructions for all cleaning and disinfection products for (concentration, application method and contact time, etc.)

**Always read and follow the directions on the label** to ensure safe and effective use.

- Wear skin protection and consider eye protection for potential splash hazards

- Ensure adequate ventilation
- Use no more than the amount recommended on the label
- Use water at room temperature for dilution (unless stated otherwise on the label)
- Avoid mixing chemical products
- Label diluted cleaning solutions
- Store and use chemicals out of the reach of children and pets


You should never eat, drink, breathe or inject these products into your body or apply directly to your skin as they can cause serious harm. Do not wipe or bathe pets with these products or any other products that are not approved for animal use.

See [EPA's 6 steps for Safe and Effective Disinfectant Use](#) 

Special considerations should be made for people with asthma and they should not be present when cleaning and disinfecting is happening as this can trigger asthma exacerbations. To learn more about reducing asthma triggers: [https://www.cdc.gov/asthma/reduce\\_triggers.html](https://www.cdc.gov/asthma/reduce_triggers.html)

- Additionally, diluted household bleach solutions (at least 1000ppm sodium hypochlorite, or concentration of 5%–6%) can be used if appropriate for the surface. Follow manufacturer's instructions for application, ensuring a contact time of at least 1 minute, and allowing proper ventilation during and after application. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.
- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3<sup>rd</sup> cup) bleach per gallon of room temperature water or
  - 4 teaspoons bleach per quart of room temperature water
- Bleach solutions will be effective for disinfection up to 24 hours.

## Soft (Porous) Surfaces

- For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces. After cleaning:
  - Launder items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely.
    - Otherwise, use products [that are EPA-approved for use against the virus that causes COVID-19](#)  and that are suitable for porous surfaces.

## Electronics

- For electronics such as cell phones, tablets, touch screens, remote controls, and keyboards, remove visible contamination if present.
  - Follow the manufacturer's instructions for all cleaning and disinfection products.
  - Consider use of wipeable covers for electronics.
  - If no manufacturer guidance is available, consider the use of alcohol-based wipes or sprays containing at least 70% alcohol to disinfect touch screens. Dry surfaces thoroughly to avoid pooling of liquids.

## Linens, clothing, and other items that go in the laundry

- Wear disposable gloves when handling dirty laundry from an ill person and then discard after each use. If using reusable gloves, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other household purposes. [Clean hands](#) immediately after gloves are removed.
  - If no gloves are used when handling dirty laundry, be sure to wash hands afterwards.
  - If possible, do not shake dirty laundry. This will minimize the possibility of dispersing virus through the air.
  - Launder items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely. Dirty laundry from an ill person can be washed with other people's items.

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- Clean and disinfect clothes hampers according to guidance above for surfaces. If possible, consider placing a bag liner that is either disposable (can be thrown away) or can be laundered.

## Hand hygiene and other preventive measures

- Household members should [clean hands](#) often, including immediately after removing gloves and after contact with an ill person, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.

**Always read and follow the directions on the label** to ensure safe and effective use.

- Keep hand sanitizers away from fire or flame
- For children under six years of age, hand sanitizer should be used with adult supervision
- Always store hand sanitizer out of reach of children and pets

See [FDA's Tips for Safe Sanitizer Use](#) and [CDC's Hand Sanitizer Use Considerations](#)

- Household members should follow normal preventive actions while at work and home including recommended [hand hygiene](#) and avoiding touching eyes, nose, or mouth with unwashed hands.
  - Additional key times to clean hands include:
    - After blowing one's nose, coughing, or sneezing
    - After using the restroom
    - Before eating or preparing food
    - After contact with animals or pets
    - Before and after providing routine care for another person who needs assistance (e.g. a child)

## Other considerations

- The ill person should eat/be fed in their room if possible. Non-disposable food service items used should be handled with gloves and washed with hot water or in a dishwasher. [Clean hands](#) after handling used food service items.
- If possible, dedicate a lined trash can for the ill person. Use gloves when removing garbage bags, handling, and disposing of trash. [Wash hands](#) after handling or disposing of trash.
- Consider consulting with your local health department about trash disposal guidance if available.

### More Information

[OSHA COVID-19 Website](#)

[CDC Home Care Guidance for People with Pets](#)

[CDC Home Care Guidance](#)

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